AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1.   (Currently Amended)   An arrangement, for allowing compensation of lost, discarded or unsent traffic on the downlink in a communication system supporting communication of packet data and classification of mobile traffic allowing application of different charging schemes for different types of traffic, comprising ~~characterized in that it comprises~~

a packet data node ~~(PDN, G-PDN; GGSN; SGSN, CGSN)~~ handling classification of traffic into different types, including ~~e. g.~~ service class, and for applying an appropriate charging scheme depending on type, that said node provides ~~(labels)~~ and sends information relating to ~~at least~~ type, including ~~e. g.~~ service class, to subsequent nodes ~~(PDN, SGSN; RNC; BSC)~~ on the downlink to a mobile station, wherein ~~and in that~~ a subsequent node ~~(PDN; SGSN; RNC ; BSC)~~ detecting a packet loss, notes said loss and enables use of the information of said loss together with ~~at least~~ type information to enable for correction of charging due to traffic loss.

2.   (Currently Amended)   The [[An]] arrangement according to claim 1, wherein ~~characterized in that~~

radio nodes provide correction/compensation for lost traffic ~~is performed~~ at ~~regular or~~ predetermined intervals ~~occasions, e. g. time or volume based, that~~ loss reports are provided ~~from radio nodes (BSC ; RNC)~~ to a preceding packet data node, said loss reports including at least said type information for said discarded/lost data traffic~~, e. g. service class information~~ and ~~in that~~

said packet data nodes ~~e. g.~~ includes said type information in a new field in a Call Detail Record or similar.

3.　(Currently Amended)　The [[An]] arrangement according to claim 1, wherein ~~characterized in that~~ charging correction/compensation for lost traffic is performed in real time and ~~in that~~ loss reports are provided from radio nodes ~~(BSC ; RNC)~~ to a preceding packet data node ~~substantially immediately~~ at occurrence of the loss, and in that a loss report ~~at least~~ including type information is provided to the packet data node supporting flexible charging together with subscriber information ~~(IMSI)~~ and access point identification ~~(NASAPI)~~ in a new message, e. g. a new GTP-message.

4.　(Currently Amended)　The [[An]] arrangement according to claim 1~~, 2 or 3~~, wherein ~~characterized in that~~ the packet data node comprises a packet data node ~~(G-PDN ; GGSN ; CGSN)~~ with a gateway functionality~~, e. g. a GGSN~~.

5.　(Currently Amended)　The [[An]] arrangement according to claim 1~~, 2 or 3~~, wherein ~~characterized in that~~ that the packet data node comprises a serving packet data node~~, e. g. a SGSN~~.

6.　(Currently Amended)　The [[An]] arrangement according to claim 1 ~~any one of claims 1-5~~, wherein ~~characterized in that~~ the packet data node comprises a packet data serving functionality and a gateway functionality~~, e. g. a CGSN~~.

7.　(Currently Amended)　The [[An]] arrangement according to claim 1 ~~any one of the preceding claims~~, wherein ~~characterized in that~~ said packet data node handling classification and labeling provides traffic ~~traffical~~ packets with ~~information, e. g. labels traffical packets with~~ service class information and rating information.

8.　(Currently Amended)　The [[An]] arrangement according to claim 1 ~~any one of claims 1-6~~, wherein ~~characterized in that~~ said packet data node handling classification and labeling provides ~~traffical~~ traffic packets ~~with information, e. g. labels traffical packets, with~~ service class information and a time stamp.

9. (Currently Amended) The [[An]] arrangement according to claim 7 ~~or 8~~, wherein ~~characterized in that~~ the traffic ~~traffical~~ packets are provided with chain identification information.

10. (Currently Amended) The [[An]] arrangement according to claim 1 ~~any one of the preceding claims~~, wherein ~~characterized in that~~ the packet data node is an access node in a GSM/GPRS system in communication with BSC:s.

11. (Currently Amended) The [[An]] arrangement according to claim 1 ~~any one of claims 1-9~~, wherein ~~characterized in that~~ the packet data is an access node supporting a UMTS/GPRS system and supports communication with RNC:s.

12. (Currently Amended) The [[An]] arrangement according to claim 10 ~~and 11~~ wherein ~~characterized in that~~ the packet data node is a dual access node supporting communication with BSC's and RNC's ~~BSC: s as well as RNC: s~~.

13. (Currently Amended) The [[An]] arrangement ~~at least~~ according to claim 2, wherein ~~characterized in that~~ loss reports relating to discarded traffic are sent periodically and [[or]] at given times.

14. (Currently Amended) The [[An]] arrangement ~~at least~~ according to claim 2, wherein ~~characterized in that~~ loss reports relating to discarded traffic are sent based on the volume of ~~the discarded traffic, e. g. of~~ given types of the discarded traffic or service classes.

15. (Currently Amended) The [[An]] arrangement ~~at least~~ according to claim 3, wherein ~~characterized in that~~ loss reports relating to discarded traffic are provided/sent in real time, substantially instantly at the occurrence of a loss directly or indirectly to the node handling flexible charging.

16.   (Currently Amended)   The [[An]] arrangement according to claim 1 ~~any one of the preceding claims~~, wherein ~~characterized in that~~ the classification and charging scheme application handling is performed by a gateway packet data node and in that it supports a content based charging functionality ~~e. g. Flexible Bearer Charging, FBC or IP flow based bearer level charging~~.

17.   (Currently Amended)   The [[An]] arrangement according to claim 16, wherein ~~characterized in that~~

information ~~at least~~ relating to type~~, e. g. service class~~ is provided to a packet data node with a serving functionality~~, e. g. SGSN~~, and ~~in that~~ said node forwards such information to subsequent nodes, and ~~in that if for communication between the serving packet data node and a subsequent node~~ if a different protocol is used than the protocol used between the serving node and the gateway packet data node, a conversion is performed such that the information can be sent over said different ~~other~~ protocol.

18.   (Currently Amended)   The [[An]] arrangement according to claim 17, wherein ~~characterized in that~~ the serving packet data node is a SGSN, ~~that~~ the gateway packet data node is a GGSN and in that the information relating to at least type is added to the GTP header of the downlink payload to SGSN, if relevant to RNC's ~~RNC: s~~, whereas if it is to be forwarded to BSC's ~~BSC: s~~, the information is included in the BSSGP header.

19.   (Currently Amended)   The [[An]] arrangement ~~at least~~ according to claim 3, ~~characterized in that for~~ wherein an RNC having discarded traffic, a loss report comprising a RANAP Data Volume Report is sent ~~substantially instantaneously~~ at occurrence of the loss of data to the preceding packet data node uplinks and ~~in that,~~ unless such preceding node handles flexible charging, it sends the new loss report message with IMSI, NASAPI to the node handling such functionality.

20.   (Currently Amended)   The [[An]] arrangement ~~at least~~ according to claim 3 wherein ~~characterized in that~~ for a BSC having discarded traffic, a loss report

including at least service class information, rating information or a time stamp, is sent ~~substantially instantaneously at occurrence of the loss~~ to the preceding packet data node uplinks <u>at occurrence of the loss</u> for charging correction/compensation, <u>wherein</u> ~~and in that~~ said packet data node<u>,</u> unless ~~itself~~ <u>the packet data node</u> handles the flexible charging functionality, provides the new loss report message with IMSI, NSAPI to the node handling such functionality.

21.   (Currently Amended)   <u>The</u> [[An]] arrangement according to <u>claim 1</u> ~~any one of the preceding claims~~, <u>wherein</u> ~~characterized in that~~ the subsequent nodes register <u>at least type and amount of</u> information about discarded packets~~, e. g. at least type and amount~~.

22.   (Original)   A packet data node in a communications system supporting communication of packet data handling classification <u>and</u> ~~and/or~~ application of charging depending on type of<u>,</u> or characteristic of<u>,</u> traffic <u>comprising:</u> ~~characterized in that it comprises~~

means for sending information about <u>type</u> at least type, e. g. service class, of data packets sent on the downlink to subsequent nodes and that such subsequent nodes <u>send</u> ~~node sends~~ reports relating to discarded/lost <u>traffic</u> ~~traffical~~ packets<u>,</u> with ~~at least~~ type information<u>,</u> to said packet data node allowing said packet data node to modify charging to compensate for lost data packets, unless said packet data node itself supports the flexible charging functionality.

23.   (Currently Amended)   <u>The</u> [[A]] packet data node according to claim 22, <u>further comprising</u> ~~characterized in that it comprises~~ a serving packet data support node (SGSN), a gateway packet data support node (GGSN) or a combined gateway and serving packet data support node (CGSN).

24.   (Currently Amended)   <u>The</u> [[A]] packet data support node according to claim 22 ~~or 23~~. ~~characterized in that it forwards~~ <u>further comprises means for</u>

forwarding service class information (QoS), rating information or time stamp information for sent packets and optionally for chain information (chain id) to subsequent nodes.

25.   (Currently Amended)   The [[A]] packet data support node according to claim 22 ~~any one of claims 22-24~~, ~~characterized in that it supports~~ further comprises means for supporting real time compensation/correction for lost packets, wherein ~~and in that~~ loss reports are provided in real time ~~including e. g. IMSI, NSAPI~~.

26.   (Original)   A method for allowing charging correction or compensation for lost discarded or unsent data packets on the downlink towards a mobile station in a system supporting content based charging or flexible bearer charging, comprising ~~characterized in that it comprises~~ the steps of:

sending information ~~at least~~ relating to assigned charging scheme~~, e. g. service class,~~ to subsequent nodes (SGSN : RNC; BSC) from a node handling classification of packets and content ~~and/or flexible/content~~ based charging;

sending a report, from one such [[a]] subsequent node towards the node handling classification and ~~and/or~~ application of ~~flexible/~~content based charging, from a node discarding an IP packet if said node does not support ~~unless itself supports~~ ~~flexible/~~content based charging.

27.   (Currently Amended)   The [[A]] method according to claim 26, wherein ~~characterized in that~~ the step of sending information ~~downlinks~~ comprises

sending ~~of~~ service class, rating information or providing a time stamp for a packet and, optionally, information for identifying the chain an IP packet belongs to.

28.   (Currently Amended)   The [[A]] method according to claim 26 ~~or 27~~, wherein ~~characterized in that~~ the reporting step comprises:

sending a report including subscriber id (IMSI), access point id (NSAPI) ~~substantially instantaneously~~ from a node, upon detecting that a packet is discarded, to allow for real time compensation/correction, wherein ~~and in that~~ such node further
registers discarded packet type and amount of discarded packets.

29. (Currently Amended) The [[A]] method according to claim 26 any one of claims 26-28, wherein characterized in that the reporting step comprises:

introducing the reporting information in a packet sent over the relevant protocol between nodes up to the node handling classification/content based (flexible) charging.

30. (Currently Amended) The [[A]] method according to claim 26 any one of claims 26-29, wherein characterized in that the node handling classification/charging comprises one of a gateway packet data node (GGSN), a serving packet data node (SGSN) or a combined gateway and serving packet data node (CGSN).

31. (Currently Amended) The [[A]] method according to claim 26, wherein characterized in that reporting is performed based on volume, with given time intervals or at given points in time, e. g. supporting CDR-based charging.